WHAT IS CLAIMED IS:

1. A table saw having a measurement and display system, comprising:

a frame structure having a main table top, a front, a back and two sides;

a circular saw rotatable around an axis, mounted in said frame structure and extendable through an opening in said table top, said saw being vertically and angularly adjustable in said frame structure;

a motor supported by said frame structure operatively connected to drive said circular saw;

a fence rail positioned adjacent said front of said frame structure;

a fence releasibly attached to said fence rail and extending over said table top;

a sensor strip connected to said fence rail, said rail having a sensor strip configured to provide digital signals that are indicative of specific positions along the length thereof;

a sensing unit movable along said sensor strip and operatively connected to said fence, said sensing unit generating signals indicative of the specific longitudinal position of said fence;

a switch operatively connected to a processing unit for establishing a reference position when activated;

a processing unit connected to said sensing unit for receiving said position indicating signals and for calculating the distance between said fence and said reference position and for generating display signals indicative of said calculated distance;

a display unit electrically connected to said processing unit configured to receive said display signals and provide a digital display of said calculated distance.

2. A table saw as defined in claim 1 further comprising a member physically connecting said sensing unit, said display unit and said processing unit together, said fence having a protrusion configured to engage a recess in said member, whereby said fence is physically coupled to said sensing unit when said fence is attached to said fence rail.

3. A table saw as defined in claim 1 wherein said processing unit is capable of generating display signals that cause said display unit to display said calculated distance in one of English or metric units.

4. A table saw as defined in claim 1 wherein said processing unit is housed with said sensing unit, said table saw further comprising a battery for powering said processing unit and said sensing unit.

5. A table saw as defined in claim 1 further comprising a display rail oriented parallel to said sensor strip, said display unit being slidable along said display rail and being mechanically and electrically connected to said sensing unit and said processing unit.

6. A table saw as defined in claim 2 further comprising a table top extension that abuts said main table top and at least one table extension rail, said table top extension being connected to said fence rail, said fence rail being slidably attached to said table extension rail so that said table top extension can be separated from said main table top to increase the effective area of the top of said table saw.

7. A table saw as defined in claim 5 wherein at least one ribbon connector electrically connects said sensing unit with said display unit and said processing unit.

8. A table saw as defined in claim 2 further comprising a block that is slidable on said display rail, said processing unit and display unit being mounted on said block and said block being connected to said sensing unit.

9. A table saw as defined in claim 8 further comprising a member that connects said sensing unit to said block.

10. A table saw as defined in claim 8 wherein said block has a cross section defining a front portion for mounting said display unit, a middle portion with a configuration that cooperatively engages and is supported by said extension rail and is movable along said extension rail, and a rear portion for mounting said sensing unit in cooperative operating position of said sensing rail.

11. A table saw as defined in claim 10 wherein said middle portion has a generally T-shaped configuration and said extension rail has a configuration that substantially surrounds said T-shaped middle portion.

12. A table saw as defined in claim 11 wherein said fence rail has an elongated slot extending a predetermined distance on one side of said table saw, said extension rail having a locking means releasably attached thereto, said locking means extending through said slot, said extension rail being movable relative to said fence rail by said predetermined distance.

13. A table saw as defined in claim 12 wherein the length of said sensor strip is generally said predetermined length, said sensor strip has opposite end portions mounted to said extension rail so that said sensor strip can be moved between left and right positions such that said sensing unit can measure its position substantially across the entire width of said table saw.

14. A table saw as defined in claim 13 further comprising switch means for generating input signals for designating either the left or right position of said extension rail relative to said fence rail, said processing unit selectively receiving said input signals and adjusting said measured distance by said predetermined distance.

15. A table saw as defined in claim 8 wherein said switch is mounted adjacent said display unit.

16. A table saw as defined in claim 15 further comprising an on/off switch for controlling power to said processing unit.

17. table saw as defined in claim 15 further comprising a switch for selectively alternating between English and metric units of length.

18. A table saw as defined in claim 8 wherein said fence has a pin that extends toward said block and is configured to engage a slot in a manner that relative movement in the direction of measurement is prohibited.

19. A table saw as defined in claim 1 wherein said sensing unit, processing unit, said switch and said display unit are attached to said fence.

20. A table saw having a measurement and display system, comprising:

a frame structure having a main table top, a front, a back and two sides;

a circular saw rotatable around an axis, mounted in said frame structure and extendable through an opening in said table top, said saw being vertically and angularly adjustable in said frame structure;

a motor supported by said frame structure operatively connected to drive said circular saw;

a fence rail positioned adjacent said front of said frame structure;

a fence releasibly attached to said fence rail and extending over said table top;

a sensor strip connected to said fence rail, said rail having a sensor strip configured to provide digital signals that are indicative of specific positions along the length thereof ;

a sensing unit movable along said sensor strip and operatively connected to said fence, said sensing unit generating signals indicative of the specific longitudinal position of said fence;

a switch operatively connected to a processing unit for establishing a reference position when activated;

a processing unit connected to said sensing unit for receiving said position indicating signals and for calculating the distance between said fence and said reference position and for generating display signals indicative of said calculated distance;

a display unit electrically connected to said processing unit configured to receive said display signals and provide a digital display of said calculated distance;

wherein said sensing unit, processing unit, said switch and said display unit are attached to said fence.

21. A linear measurement and display system for a table saw of the type which has a removable fence that is laterally adjustable relative to the blade of the saw along a fence rail located on the front of the table saw, said system comprising:

a sensor strip positioned generally parallel to the fence rail, said sensor strip configured to provide digital signals that are indicative of specific positions along the length thereof;

a sensing unit movable along said sensor strip and operatively connected to the fence, said sensing unit generating signals indicative of the specific lateral position of the fence;

a switch operatively connected to a processing unit for establishing a reference position when activated;

a processing unit connected to said sensing unit for receiving said position indicating signals and for calculating the distance between said fence and said reference position and for generating display signals indicative of said calculated distance; and

a display unit electrically connected to said processing unit configured to receive said display signals and provide a digital display of said calculated distance.

22. A system as defined in claim 21 wherein said sensor strip is connected to the fence rail.

23. system as defined in claim 21 further comprising a member physically connecting said sensing unit, said display unit and said processing unit together, the fence having a pin for engaging a slot in said member, whereby the

fence is physically coupled to said sensing unit when the fence is attached to the fence rail.

24. A system as defined in claim 21 wherein said processing unit is capable of generating display signals that cause said display unit to display said calculated distance in one of English or metric units.

25. A system as defined in claim 21 wherein said processing unit is housed with said sensing unit, said table saw further comprising a battery for powering said processing unit and said sensing unit.

26. A system as defined in claim 21 further comprising a display rail extending parallel to said sensor strip, said display unit being slidable along said display rail and being mechanically and electrically connected to said sensing unit and said processing unit.

27. A system as defined in claim 21 further comprising a table top extension that abuts said main table top and at least one table extension rail, said table top extension being connected to the fence rail, the fence rail being slidably attached to said table extension rail so that said table top extension can be separated from said main table top to increase the effective area of the top of said table saw.

28. A system as defined in claim 26 wherein at least one ribbon connector electrically connects said sensing unit with said display unit and said processing unit.

29. A system as defined in claim 23 wherein said switch is mounted adjacent said display unit.

30. A system as defined in claim 23 further comprising an on/off switch for controlling power to said processing unit.

31. A system as defined in claim 23 further comprising a switch for selectively alternating between English and metric units of length.

32. A linear measurement and display system for a table saw of the type which has a removable fence that is laterally adjustable relative to the

blade of the saw along a fence rail located on the front of the table saw, said system comprising:

a rotational position transducer unit having a retractable flexible elongated member extending from the unit, said unit being configured to provide signals that are indicative of the length that said elongated member extends from said unit;

one of said position transducer unit and said elongated member being operatively connected to the fence and the other being operatively connected to the table saw and oriented to extend and retract said member relative to said unit as said fence is moved along the fence rail;

a processing unit in communication with said position transducer unit for receiving said signals and for calculating the distance between said fence and a reference position and for generating display signals indicative of said calculated distance;

a switch operatively connected to said processing unit for establishing a reference position when activated; and

a display unit electrically connected to said processing unit configured to receive said display signals and provide a digital display of said calculated distance.

33. A system as defined in claim 32 wherein said position transducer unit is electrically connected to said processing unit.

34. A system as defined in claim 32 wherein said position transducer unit is remotely located from said processing unit, said system further comprising a transmitting means operatively connected to said position transducer unit for transmitting information corresponding to said length indicating signals and a receiving means operatively associated with said processing unit for receiving said length indicating signals.

35. A system as defined in claim 34 wherein said transmitting means transmits infrared signals which are received by said receiving means.

36. A system as defined in claim 32 wherein said elongated member comprises a flexible tape.

37. A system as defined in claim 32 wherein said elongated member comprises a flexible cable

38. A system as defined in claim 32 wherein said position transducer unit is located adjacent said display unit.

39. A system as defined in claim 32 wherein said display unit is connected to the fence.